The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARIO DIMARCO

Appeal 2006-2970
Application 09/224,340[1]
Technology Center 2800

Decided: March 27, 2007

Before JOHN C. MARTIN, LEE E. BARRETT, and SALLY C. MEDLEY, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the non-final rejection of claims 1-7 and 9-24. Claim 8 has been canceled.

We affirm-in-part.

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[1] Application for patent filed December 31, 1998, entitled "Modified IMA Cabinet Architecture."

BACKGROUND

The invention relates to an integrated modular avionics (IMA) cabinet for housing printed circuit board (PCB) modules in avionics systems for airplanes.

Claim 1 is reproduced below.

1. An integrated modular avionics (IMA) cabinet comprising:

a plurality of printed circuit board (PCB) modules, wherein each PCB module includes a faceplate and a connector assembly disposed opposite said faceplate such that each PCB module is enclosed; and

a chassis having a front, wherein said front of said chassis is configured with slots for receiving said plurality of PCB modules, and wherein said plurality of printed circuit board modules creates a seal with said chassis.

THE REFERENCES

The Examiner relies on the following references:

McKenzie	US 4,002,386	Jan. 11, 1977
Mazura	US 5,375,724	Dec. 27, 1994
McCarthy	US 5,398,822	Mar. 21, 1995
Martin	US 5,424,916	Jun. 13, 1995
Harris	US 5,546,273	Aug. 13, 1996

THE REJECTIONS

Claims 1, 13, and 22-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mazura.

Claims 2-5, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mazura and Harris.

Claims 6, 7, and 9-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mazura and Martin.[2]

Claims 14-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mazura and McCarthy.

Claims 12 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mazura, Martin, and McKenzie.[3]

The rejection of claims 4 and 5 under 35 U.S.C. § 112, second paragraph, as being indefinite is apparently withdrawn since it is not repeated in the Examiner's Answer. *See Ex parte Emm*, 118 USPQ 180, 181 (Bd. App. 1957); *Manual of Patent Examining Procedure* § 1208 (8th ed.

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[2] Since claims 6, 7, and 9-11 depend directly or indirectly from claim 2, which is rejected over Mazura and Harris, claims 6, 7, and 9-11 should be rejected over Mazura, Harris, and Martin.

[3] In the non-final Rejection of August 28, 2002, the Examiner rejected claims 12 and 21 over the combination of Mazura, Martin, and McKenzie. In the Examiner's Answer, the Examiner rejects claims 12 and 21 over the combination of Mazura, Harris, and McKenzie. Since claim 12 depends from claim 2, which is rejected over Mazura and Harris, claim 12 should be rejected over the combination of Mazura, Harris, and McKenzie. Since claim 21 depends from claim 6, which is properly rejected over Mazura, Harris, and Martin (footnote 2), claim 21 should be rejected over the combination of Mazura, Harris, Martin, and McKenzie.

Aug. 2001) ("any rejection not repeated and not discussed in the answer may be taken by the Board as having been withdrawn"). In any case, the rejection would be reversed. Normal screws, when tightened, exert a force which increases with the amount of tightening. Applicant discloses that special screws have a "clutch" which slips so that the screws can be turned without further tightening to apply a predetermined amount of force (Specification 10, ll. 14-15). Claims 4 and 5 are definite.

DISCUSSION

Claims do not stand or fall together

The Examiner states that the claims stand or fall together because Appellant's Brief does not include a statement that the claims do not stand or fall together and reasons in support thereof (Answer 2). Appellant refers to 37 C.F.R. § 1.192(c)(7) and states that the grouping of claims was specified and the claims were separately argued (Reply Br. 3).

Appellant has separately argued the claim groups at Brief 5-6. Thus, the claims are grouped as argued.

Anticipation -- Mazura

Group I - claims 1, 13, 16, 17, and 22

Initially, we note that there is no contention that Mazura does not have "slots." The claims do not define any structure for the PCB modules and the chassis. For example, the claims do not say that the "slots" are defined by vertical strips between an upper and lower horizontal beam as shown in Appellant's Figure 3. The "slots" could just be locations for inserting PCB

modules. This interpretation is supported by Harris which discusses "slots" even though there is no vertical strips between modules (col. 3, ll. 53-54).

Appellant first argues that Mazura does not disclose that "each PCB module includes a faceplate and a connector assembly disposed opposite said faceplate such that each PCB module is enclosed," as recited in claim 1 (Br. 7; Br. 22). It is argued that Mazura has a common rear wall plate for all plug-in modules, so that the plug-in modules can communicate with each other, whereas, it is argued, claim 1 requires that "each PCB module has a faceplate and a connector assembly, not one common assembly" (Br. 8).

The Examiner responds that each PCB module in Mazura has a faceplate and a connector (not shown) for inserting into the component carrier (Answer 8).

Appellant's arguments are not clear. To the extent Appellant is relying on the limitation that "each PCB module is *enclosed*," it is not clear what is meant by "enclosed." The limitation "*such that* each PCB module is enclosed" (emphasis added) in claim 1 implies that the module is enclosed as a result of a connector assembly being disposed opposite a faceplate. No other enclosing structure is recited other than, implicitly, the chassis. Claim 24 merely recites that "each PCB module is enclosed," without any description of what structure encloses it. Apparently, "each PCB module is enclosed" can be interpreted to mean that it is enclosed when it is in the chassis because otherwise it seems that the limitation is indefinite.

As to Appellant's argument that claim 1 requires that "each PCB module has a faceplate and a connector assembly, not one common

assembly" (Br. 8), the PCB modules in Mazura have a faceplate and plug into plug-in connections on a rear wall plate (col. 4, ll. 11-13) and, so, the PCBs must each have a connector assembly. We assume that the "rear wall plate" in Mazura refers to some sort of backplane in the chassis. If Appellant intends to argue that his invention does not use a common backplane to connect the PCBs, this is not claimed. Claim 1 only recites a connector assembly on the PCB modules and says nothing about how the PCB modules are connected. As a further matter of claim interpretation, claim 1 merely states that the PCB includes a connector assembly and does not require a connector assembly separate from the PCB (*compare* claim 9).

Appellant secondly argues that Mazura does not disclose the limitation that "said plurality of printed circuit board modules creates a seal with said chassis," as recited in claim 1, because the spring contact seal in Mazura is between plug-in modules only and not between plug-in modules and the component carrier (Br. 8; Br. 22).

The Examiner responds that Mazura discloses a seal to the component carrier at column 1, lines 30-40, and column 4, lines 1-6 (Answer 8-9).

The limitation of "said plurality of printed circuit board modules creates a seal with said chassis" only requires that the plurality of modules create a seal with the chassis, and does not require a seal to the chassis all around the periphery of each faceplate. The top and bottom of the faceplate in Mazura inherently create "a seal" with the chassis by contact of the faceplate with the chassis at the upper and lower module rails 3, just as in

Appellant's invention, because the only shielding problem mentioned by Mazura is in connection with the longitudinal gaps between modules.

The rejection of claims 1, 13, 16, 17, and 22 is affirmed. It is noted that claims 16 and 17 were rejected for obviousness, but are grouped by Appellant to stand or fall together with claim 1.

Group II - claim 23

Appellant argues that Mazura does not disclose "said plurality of printed circuit board modules creates a seal with said chassis," as recited in claim 23 (Br. 8; Br. 22). We disagree for the reasons stated in connection with the rejection of claim 1. The rejection of claim 23 is affirmed.

Group III - claim 24

Appellant argues that Mazura does not disclose "each PCB module is enclosed" and "said plurality of printed circuit board modules creates a seal with said chassis," as recited in claim 24 (Br. 8; Br. 22). We disagree for the reasons stated in connection with the rejection of claim 1. The rejection of claim 24 is affirmed.

Obviousness

Claims 2-5, 19, and 20 -- Mazura and Harris

Group IV - claim 2

The Examiner finds that Mazura shows a screw attaching the faceplate to the chassis at one end, but does not show a second screw attached to the other end (August 28, 2002, Rejection 3-4). The Examiner finds that Harris

shows a faceplate with screws 90 at both ends and concludes that it would have been obvious to use first and second screws to attach the faceplate in Mazura as taught by Harris (Rejection 4).

Appellant argues that the combination of Mazura and Harris fails to disclose or suggest the limitations of claim 2 because the screws in Mazura screw the modules to module rails 3 and not to the component carrier 1 (Br. 11). It is argued that Harris discloses thumb screws for securing an audio component card 70 within the housing 12, but that the card 70 having a circuit board 72 and a faceplate 74 is not a PCB module (Br. 11).

The Examiner responds that Harris discloses a second screw 90 attached to a second end of a faceplate (Answer 9).

Mazura discloses that the component carrier 1 includes the front module rails 3 (col. 3, ll. 60-62). The module rails 3 are part of the chassis in the same way that the horizontal beams 308 and 336 are part of the chassis in Appellant's invention. The screws attach to the rails in Mazura in the same manner that the screws attach to the horizontal beams in Appellant's invention. Thus, the screws in Mazura attach the PCB faceplate to the carrier, but Mazura uses a pivotal handle 9 to secure the lower end of the faceplate instead of a screw. Harris teaches screws 90 at both ends of the faceplate to connect it to the chassis. One of ordinary skill in the art would have been motivated to use a screw on the lower end of the faceplate in Mazura, instead of the handle 9, in view of the teaching in Harris.

Harris is only used for its teaching of using two screws to attach the faceplate. Nevertheless, Appellant does not explain why Harris does not

disclose a PCB module. Each card 70 includes a printed circuit board (PCB) 72 having a plug end 80, and which is attached to a face plate 74. Claim 1 does not recite that a PCB is "connected" to the "connector" (*compare* claim 9) and so does not distinguish over the connector being part of the PCB. Since the card includes a PCB and is modular, we fail to see why it is not a PCB module. In any case, Harris is not relied on for the PCB module.

The rejection of claim 2 is affirmed.

Group V - claim 3

The Examiner finds that the screw 19 in Mazura is a jack screw (Rejection 4).

Appellant argues that Mazura does not disclose a jack screw as stated by the Examiner (Br. 11, Br. 23; *see also* jack screw arguments under the discussion of claims 4 and 5, Br. 12).

The Examiner responds that "[t]he screw 19 can uses [sic] by hand or tools to fasten the screw to the faceplate as configure [sic] as a jack-screw" (Answer 9).

We do not understand the Examiner's position. A jack screw is a term of art for a screw that moves a plate away from the chassis as the screw is unscrewed (Specification 11, ll. 1-3); i.e., it "jacks" the module out of the chassis. There is no suggestion that the screw 19 in Mazura performs this function and the Examiner has provided no other meaning for the term "jack screw." There is no evidence in Mazura or Harris that it was known to use jack screws on PCB modules. The rejection of claim 3 is reversed.

Groups VI and VII - claims 4 and 5

The Examiner finds that the screws 90 in Harris are configured to clutch when tightened to apply a predetermined amount of force and the selection of an optimum value of force is a matter of routine skill in the art (Rejection 4-5).

Appellant argues that Harris does not disclose that the screws are configured to "clutch" when the screws are tightened to apply a predetermined amount of force, as recited in claim 4, and specifically to 70 pounds per screw as recited in claim 5 (Br. 12-13, Br. 23).

The Examiner responds that a predetermined amount of force is optimization of a result effective variable (Answer 9).

Claim 4 requires that the screws are configured to "clutch" when tightened to apply a predetermined amount of force. "Clutch" is a term of art that means that the screws can be turned without further tightening to apply a predetermined amount of force (Specification 10, ll. 14-15). Normal screws will just strip the thread on the screw or in the hole when overtightened. The Examiner's reasoning does not account for the "clutch" language and we do not find any teaching of clutching in either Mazura or Harris. The rejection of claims 4 and 5 is reversed.

Groups VIII and IX - claims 19 and 20

The Examiner finds that Mazura does not disclose that the top and bottom panels have a plurality of guide rails for guiding the PCB modules (Rejection 5). The Examiner finds that Harris shows guide rails 52 centrally mounted to the top and bottom panels and concludes that it would have been obvious to use guide rails in Mazura to guide the PCB module (Rejection 5).

Appellant argues that the module rails 3 in Mazura connect the side walls and, so, cannot be centrally mounted with respect to the slot (Br. 13). It is argued that Harris discloses upper and lower tracks 52 snap fit into the upper and lower chassis (Br. 13). It is argued that there is no motivation to combine Harris and Mazura and that, regardless, the combination does not teach or suggest "guide rails for guiding said PCB modules into said slots in said chassis," as recited in claim 19, or "each slot in said chassis has one guide rail mounted on said top panel and one guide rail mounted on said bottom panel, wherein said guide rails are centrally mounted with respect to each slot," as recited in claim 20 (Br. 13-14; Br. 23).

The Examiner responds that Mazura has top and bottom panels having guide rails 3 for guiding the PCB module into the component carrier, which the Examiner states is a new ground of rejection (Answer 10).

We do not understand the Examiner's statement in the Examiner's Answer about rails 3 in Mazura being guide rails. The rails 3 in Mazura have a perforated strip 27 with centering holes 25 for accepting centering pins 22, but this does not clearly meet the claim language about "rails." However, Mazura discloses that "[e]ach circuit board 7 is guided in guide

rails that extend between the front and rear module rails 3" (col. 4, ll. 13-15) and expressly teaches a plurality of guide rails as recited by claim 19, but does not expressly state that the guide rails are at the top and bottom of each slot. Harris expressly discloses top and bottom tracks 52 for each slot (col. 3, ll. 53-67), where the tracks are guide rails. One of ordinary skill in the art would have been motivated to use top and bottom guide rails for the guide rails in Mazura given the teachings of Harris that this was known in the electronic cabinet art and as a matter of common sense because a pair of guide rails facilitates alignment of the module with the connectors as it is being inserted. Mounting of the guide rails centrally with respect to the slot, as recited in claim 20, is not argued, but, in any case, is considered to be a matter of routine design placement; i.e., the location of the rail in the center of a slot produces no new and unexpected results. The rejection of claims 19 and 20 is sustained.

Claims 6, 7, and 9-11 -- Mazura and Martin

Group X - claim 6

The Examiner finds that Mazura does not teach a module with two circuit boards (Rejection 5). The Examiner finds that Martin teaches a module with two circuit boards and concludes that it would have been obvious to modify the cabinet and to provide two circuit boards on the module in Mazura to reduce the electrical connections between two boards and the backplane connector of the cabinet (Rejection 5-6).

Appellant argues that the combination of Mazura and Martin fails to teach two circuit boards with first ends connected to a face plate and second ends connected to a connector assembly (Br. 15). It is argued that attempting to insert the module of Martin having two circuit boards and a heatsink member into the module of Mazura would render Mazura inoperable for its intended use because the electronic module of Martin could not fit in the space for module 2 in Mazura (Br. 15).

The Examiner responds that Martin discloses a module with first and second circuit boards connected to a connector assembly 50 with 90 degree leads and without ribbon cables (Answer 10).

Appellant does not address the Examiner's rejection which states that it would have been obvious to *modify* the cabinet and module in Mazura to have two circuit boards as taught to be known in Martin. It would have taken only minimal mechanical skill in the art to modify the cabinet in Mazura to accommodate a wider module with two circuit boards (with or without a heat sink). While the module in Martin does not have a faceplate, the rejection does not rely on Martin for this feature which is taught by Mazura. We agree with the Examiner that one of ordinary skill in the electronic packaging art would have been motivated to modify modules with a single PCB, such as Mazura, to have first and second PCBs on the same module, as taught by Martin, because this would provide additional circuit board area for an electronics circuit module.

Appellant further argues that Martin is non-analogous art because the heatsink of Martin is not reasonably pertinent to the problems with which the invention is concerned (Br. 15-16).

The Examiner does not respond to this argument. However, Martin is at least reasonably pertinent to the general problem facing the inventor of housings for electronic modules. The fact that Martin contains additional teachings regarding cooling with a heatsink does not make it non-analogous. We find that Martin is within the scope of the relevant prior art.

The rejection of claim 6 is sustained.

Group XI - claims 7 and 9-11

Claims 7 and 9-11 are argued to stand or fall together (Br. 5).

The Examiner does not address the limitation "said connector assembly further comprises a plurality of connectors for connecting to wire harnesses" in claim 7. The Examiner finds that Mazura does not disclose the circuit board connected to a connector assembly without using ribbon cables (recited in claim 9), or being connected with surface mounted leads (recited in claim 10), or being connected with 90 degree leads (recited in claim 11), and finds that these limitations are taught in Figure 2 of Martin, but never addresses the limitations of claim 7.

Appellant argues that the combination of Mazura and Martin fails to teach "said connector assembly further comprises a plurality of connectors for connecting to wire harnesses," as recited in claim 7 (Br. 15). Appellant

describes the contents of Martin, but never explains why Martin does not teach the limitation.

The "connector assembly" refers to a connector assembly of a PCB module as recited in claim 1. While a connector assembly can have a single connector, claim 7 requires "said connector assembly further comprises a plurality of connectors," so there must be a plurality of connectors on the PCB module; *see* Appellant's Figure 4; Specification 14, ll. 12-15. Mazura is vague about the connector and Martin teaches only a single connector 50 on the module; thus, neither meet the limitation of "said connector assembly further comprises a plurality of connectors." While it may have been well known to provide a plurality of connectors on a PCB module, the Examiner has provided no reasoning or evidence as to this limitation and such fact is not appropriate for Official Notice. In addition, although we interpret the limitation of a plurality of connectors "for connecting to wire harnesses" to be a statement of intended use since no wire harnesses are claimed, the plurality of connectors must be capable of connecting to wire harnesses. The Examiner does not address the limitation. The PCB connectors in Mazura connect to connections on a rear wall plate (col. 4, ll. 11-13) and are apparently not capable of connecting to a wire harness. The PCB connectors in Martin connect to connectors on a mother board (col. 5, ll. 27-32), so apparently are not capable of connecting to a wire harness. Because the Examiner does not address the limitation "said connector assembly further comprises a plurality of connectors for connecting to wire harnesses," we are constrained to reverse the rejection of claim 7 and its dependent claims 9-11.

As a further matter, we find that neither Mazura nor Martin teaches how the connectors are connected to the circuit board and, so, do not teach the limitations of claims 9-11. The rejection of claims 9-11 is reversed for this additional reason.

Claims 14-18 -- Mazura and McCarthy

Groups XII and XIII - claims 14 and 15

The Examiner finds that Mazura does not disclose that the top and bottom panels are interchangeable and that the side panels are interchangeable (Rejection 6). The Examiner considers that this is a mere relocation of parts which is within the level of skill in the art (Rejection 6). The Examiner does not refer to McCarthy.

Appellant argues that Mazura and McCarthy do not teach or suggest that the top and bottom panels are interchangeable as recited in claim 14, or that the side panels are interchangeable as recited in claim 15 (Br. 16-17). It is argued that making the panels interchangeable is not a mere relocation of parts (Br. 17).

The Examiner finds that relocating a part of a cabinet without modifying operation of the cabinet is within the skill in the art (Answer 10).

It is apparent that the Examiner relies on the knowledge and skill of one of ordinary skill in the art rather than any teaching in Mazura or McCarthy. While we prefer to have a reference, and while we agree with Appellant that the issue is not relocation of parts, we find that one of ordinary skill in the art had sufficient mechanical knowledge and skill in the manufacturing art to be motivated to make the top and bottom

interchangeable and the sides interchangeable in order to minimize the number of different pieces. It is common knowledge in everyday life to make parts interchangeable, e.g., to make bookcases symmetrical so that the sides are interchangeable. Skill in the art is presumed. *See In re Sovish*, 769 F.2d 738, 743, 226 USPQ 771, 774 (Fed. Cir. 1985). It also appears that there is nothing different between the top and bottom and between the sides in Mazura that would prevent them from being interchangeable. The rejection of claims 14 and 15 is affirmed.

Claims 16 and 17

Claims 16 and 17 have been argued to stand or fall together with claims 1 and 13 (Br. 5) and are not separately argued. Since the rejection of claims 1 and 13 is sustained, the rejection of claims 16 and 17 is affirmed.

Group XIV - claim 18

The Examiner finds that Mazura does not disclose the particular size of the holes for ventilation being less than 0.09 inches in diameter, but concludes that it would have been an obvious matter of design choice to make the holes as small a diameter as possible to reduce space and that change in size is generally recognized as being within the level of ordinary skill in the art (Rejection 7).

Appellant argues that McCarthy fails to teach or suggest that "ventilation holes are less than about 0.09 inches in diameter," as recited in claim 18 (Br. 17). It is argued that the holes in McCarthy were chosen to balance the functional requirements of a Faraday shield and sufficient air

flow and the openings of 11.75 mm by 18.7 mm is not a hole less than about 2.3 mm (0.09 inches) (Br. 17).

The Examiner responds that it would have been an obvious matter of design choice to make the holes as small a diameter as possible to reduce the amount of space (Answer 7).

McCarthy discloses that a Faraday shield minimizes the leakage of electromagnetic interference (EMI) and radio frequency interference (RFI), and that the size of the holes should be selected to balance the requirements of a Faraday shield and air flow for cooling (abstract). These are the same reasons Appellant has selected the particular hole diameter; *see* Specification 8, ll. 16-19, and claims 16 and 17. The size of the holes depends on the frequencies involved; the higher the frequency, the shorter the wavelength, and the smaller should be the diameter of the holes to provide shielding (not to reduce space as stated by the Examiner). We find that one of ordinary skill in the art of designing EMI/RFI cabinets for the purpose of Appellant's invention would have been motivated to select 0.09 inches in diameter based on routine design considerations of the frequencies intended to be shielded by the cabinet. The rejection of claim 18 is affirmed.

Claims 12 and 21 -- Mazura, Martin, and McKenzie

Group XV and Group XVI - claims 12 and 21

The Examiner finds that the references applied to claims 2 and 6 do not teach a flexible handle mounted on the faceplate, but that a flexible handle is shown in McKenzie, and concludes that it would have been

obvious to provide the handle in McKenzie on the faceplate in Mazura to make it easier to remove the module from the cabinet (Rejection 7).

Appellant argues (Br. 18-19) that McKenzie fails to disclose "a slot," "a flexible handle member having substantially the same dimensions as said slot," the handle moving "between a retracted position and a use position," and "said flexible handle member lies within said slot in said retracted position and said flexible handle member extends out from said slot in said use position," as recited in claims 12 and 21, and, further, where one end of the handle member "does not move when said flexible handle member moves between said retracted position and said use position," as recited in claim 21. It is argued that the handle in McKenzie is not slideably attached, but is attached to pins mounted on a circuit board and is made to lock in position, and modifying the handle in McKenzie would render it improper for its intended purpose of locking it in position (Br. 19).

The Examiner responds that McKenzie teaches a flexible handle mounted to a faceplate (Answer 8).

McKenzie disclose a flexible self-locking handle for mounting modules to a rack. The handle has a retracted position where the handle lies flat and a use position where the handle extends out from the flat position. Figure 8 shows an embodiment where the flexible handle pivots on a pin 79 at one end and which has a slot which slides over a fixed pin 81 at the other end, which meets the limitation of claim 21 that one "end of said flexible handle member does not move when said flexible handle member moves between said retracted position and said use position." The handle in

McKenzie is mounted directly to the printed circuit board 22 instead of to a faceplate attached to the printed circuit board. McKenzie discloses that it may be "desirable to have the handle 24 flush with surfaces 16 and 18" (col. 3, ll. 58-59), which are the front surfaces of the rack.

McKenzie does not teach that the handle is mounted in a slot formed in the faceplate. Nevertheless, we agree with the Examiner that one of ordinary skill in the art would have been motivated to mount the handle of McKenzie on the faceplate in Mazura because the handle is for the same purpose of removing PCBs from a rack and the faceplate is attached to the PCB. The fact that the handle would not perform a locking function is not important, because it is only the handle function that is needed. Furthermore, one of ordinary skill in the art would have been motivated to mount the handle in a slot in the faceplate so as to not protrude since McKenzie discloses that it may be "desirable to have the handle 24 flush with [the front surface of the rack]" (col. 3, ll. 58-59). The rejection of claims 12 and 21 is affirmed.

CONCLUSION

The rejections of claims 1, 2, 6, and 12-24 are affirmed.

The rejections of claims 3-5, 7, and 9-11 are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED-IN-PART

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